

CLAIMS

1. A resolver I/O terminal device in a resolver equipped with a stator assembly equipped with a core wherein there are multiple stacked plate-shaped units with protruding stator magnetic poles that have multiple stator magnetic pole teeth in a direction facing a center of a yoke part, one insulating member and another insulating member equipped on both sides of said stator core in the axial direction, and a lead line terminal block wherein the stator coils, which are wrapped on the stator magnetic poles, are connected to lead lines;

wherein said lead line terminal block not only has embedded within it fastening pins for winding the stator coil terminals, but is also provided with multiple through holes and has a through groove in the direction in which said multiple through holes are lined up, and equipped with flat terminals, provided with flat terminal pin parts that contact said lead lines and stator coil wires, and are equipped horizontally on said lead line terminal blocks so as to cut across said through groove,

where the tips of said lead lines are equipped with connection terminals that connect to said flat terminal pin parts.

2. A resolver I/O terminal structure according to Claim 1, wherein said lead line terminal block is not only formed with multiple lead line fastening grooves on one surface thereof, but the opposite surface is equipped with slack pins to guide the stator wires to the side wherein said multiple through holes are lined up, and fastening pins for wrapping the stator coil lead lines on the side opposite of where said slack pins are equipped, across said through groove, where said slack pins can be bent up easily from the base of said lead line terminal block.

3. A resolver I/O input structure according to Claim 1, where said lead line terminal block is fabricated with a surface whereon said fastening pins and slack pins are provided, and fabricated with a mating protrusion part on the other surface, where said mating protrusion part fits together with through holes fabricated in either said one insulating member or said other insulating member.

4. A resolver I/O terminal structure according to Claim 1, wherein said lead line terminal block is fabricated with a rim part that contacts the stator core on the surface on the side opposite from said mating protrusion part.

5. A resolver I/O terminal structure according to Claim 1, wherein said lead line terminal block is fabricated separately from the one insulating member and from said other insulating member.

6. A resolver I/O terminal structure according to Claim 1, wherein said lead line terminal block is structured as an integrated unit with said one insulating member or with said other insulating member.

7. A resolver I/O terminal structure according to Claim 1, wherein said lead line terminal block is structured from a top terminal block and a bottom terminal block split between one surface and another surface, where said top terminal block is structured as an integrated unit with one insulating member, and said bottom terminal block is structured as an integrated unit with said other insulating member.

8. A resolver I/O terminal structure according to Claim 1, wherein said flat terminal is such that said flat terminal pin part is deflected to an angle of approximately 90

degrees relative to the flat terminal and is not only inserted into an aforementioned through hole, but also passes through the other surface so that the flat terminal pin part that is passed through said through hole connects to a connector terminal equipped along said lead line fastening groove.

9. A resolver I/O terminal structure according to Claim 1, wherein said flat terminal is fabricated with a rim-shape weld part bent at the location wherein said through groove is crossed.

10. A resolver connection method in a resolver I/O terminal structure in a stator assembly equipped with a stator core, wherein there are multiple plates that are stacked with protruding stator magnetic poles that have multiple stator magnetic pole teeth that are protruding in the direction towards the center of a yoke part, one insulating member and another insulating member equipped, respectively, on both sides of said stator core, and a lead line terminal block wherein the lead lines for stator coils that are wound around said stator magnetic poles are connected, where said stator core is fabricated with a protruding part that has within it an indented part so as to fit with said lead line terminal block,

where said lead line terminal block not only has multiple through holes and through grooves that are fabricated in the direction in which said multiple through holes are lined up, but also has, on one surface, mating protrusion parts that mate with the through holes fabricated on either one of said insulating parts, as well as multiple lead line fastening grooves,

where, on the other surface that is not said one surface, not only are there are embedded fastening pins upon which the stator coil terminals are wound along with slack pins that can be bent easily from the base position of said lead line terminal block,

established and embedded in both sides of said through grooves, but also flat terminals equipped with flat terminal pin parts, which connect said lead lines to said stator coil lines, are equipped so as to cut across said through grooves, while, additionally, not only is there a rim part that mates with the stator core fabricated in said other surface and fastening protrusion parts fabricated in said other surface to mate with the through holes fabricated in said flat terminals, but also, said flat terminals are fabricated so that the weld part of said rim is fabricated in a place that cuts across said through groove and said flat terminal pin parts are bent to approximately 90 degrees to a direction that can be inserted into the multiple through holes fabricated in said lead line terminal block;

wherein said resolver connection method is characterized by fastening the lead line terminal block, to which the flat terminals have been attached, to the stator core, winding the stator coils, using resistive welding to weld said weld parts to said stator coils, and arc welding said flat terminal pin parts and the connector terminals.

11. A resolver connection method according to Claim 10, wherein, after fitting, into an indentation fabricated in a protrusion of the stator core, a lead line terminal part, wherein said fastening protrusions mate with through holes fabricated in the flat terminals, through the insertion of said flat terminal pin parts into said multiple through holes, the one insulating member and the other insulating member are each tightly fitted from both sides of the stator core in order to mate the through holes fabricated in one or the other of the aforementioned insulating members with the aforementioned mating protrusion parts, and the tips of said mating protrusion parts are affixed to the insulating member to form a stator assembly.

12. A resolver connection method according to Claim 10, wherein stator coil leads are wrapped on said stator assembly, and the ends of said wrapped stator coil leads are passed through the slack pins and between the weld parts that are fabricated with a bend in said flat terminals, after which the tips thereof are wrapped on fastening pins, where the stator coil lead lines that are passed between said weld parts are welded to the flat terminals at said weld parts through resistive welding of said weld parts after inserting the electrodes of the resistive welder from the top and bottom of said through groove, and then bending said slack pins.

13. A resolver connection method, according to Claim 10, wherein connection terminals of lead lines wherein connection terminals are pressed onto the tips thereof are equipped along said lead line affixing groove to mate with said connection terminals at said flat terminal pin part, which have passed through said one surface after being inserted into said multiple through holes, where said flat terminal pin part and the connection terminals are then arc welded together.